DOCUMENT RESUME

ED 291 185 EC 201 952

AUTHOR Kramer, Linda R.
TITLE Differences in Learning and Achieving in Self-Contained and Resource Room Programs for the Gifted.
PUB DATE Apr 87
NOTE 24p.; Paper presented at the Annual Conference of the American Educational Research Association (Washington, D.C., April, 1987). The research was partially supported by a grant from the Kentucky Advisory Council for Gifted and Talented Education. For related document, see EC 201 951.
PUB TYPE Reports - Evaluative/Feasibility (142) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Classroom Environment; Competition; Cooperation; *Educational Objectives; Educational Philosophy; Elementary Education; *Gifted; *Intergroup Relations; Outcomes of Education; *Resource Room Programs; *Self Contained Classrooms; Special Classes; Teacher Attitudes; Teacher Student Relationship

ABSTRACT

A study gathered quantitative and qualitative data on the cognitive and affective outcomes for gifted students (grades 3-6) in full- and part-time programs from three classrooms in each of two neighboring school districts, one urban and one rural. Results suggested that outcomes are affected by the goal structures of classrooms and that the instructional environment of a gifted classroom may be a more important variable than the amount of time students spend in a program. Differences in the full- and part-time classrooms operating in the two districts and their effects were examined. Qualitative analysis led to the proposition that cooperatively structured classrooms were more successful learning environments than competitive ones. Numerous examples and quotes drawn from the researcher's classroom observations are given. Illustrations provide floor plans, daily routines, and schedules of classroom activities for both the self-contained and pull-out classrooms in the two districts. (VW)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED291185

DIFFERENCES IN LEARNING AND ACHIEVING IN SELF-CONTAINED AND RESOURCE ROOM PROGRAMS FOR THE GIFTED

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Linda R. Kramer
University of Kentucky

Paper presented at the annual conference of the American Educational Research Association, Washington, D.C., April, 1987.

This research was partially supported by a grant from the Kentucky Advisory Council for Gifted and Talented Education.

EC 201952

BEST COPY AVAILABLE

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Linda R. Kramer
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Few comparative studies which address the effectiveness of different programs for gifted children have been undertaken. Those empirical studies which are available show that there are significant differences in favor of both full and part-time models over the regular classroom (Griffin, 1984; Widdup, 1981). In particular, Widdup (1981) found that underachieving gifted students made significant gains in achievement and I.Q. when placed in a self-contained gifted classroom as opposed to the regular classroom. Rimm (1986), however, has urged caution. Noting that for underachieving students "any label that unrealistically narrows prospects for performance by a child may be damaging" (p.84), she concludes that placements in which peer pressure and lowered parent or teacher expectancy result, may permanently damage a student's performance. This paper reports the findings of a study which investigated learning and achievement for gifted students enrolled in two different program models.

METHODOLOGY

This study was a part of a larger research project in which qualitative and quantitative data were gathered on the cognitive and affective outcomes for gifted students enrolled in full and part-time programs (Demers, Kramer, & Lacefield, 1987). Full-time programs are defined here as self-contained classrooms; part-time programs as resource room classes which met one full day per week. The quantitative portion of the project was designed to determine the following : (1) Do different program models produce different cognitive and affect outcomes? and (2) Do students in the upper, middle, and lower I.Q. and achievement range make greater gains in full or part-time programs? The qualitative portion of the project was designed to ask similiar questions through extensive participant-observation, interviewing, and prolonged exposure to the environment. The purpose of this study was to uncover patterns and trends which affect learning in two different program options for gifted students.

During the initial phase of observation, data collection centered around the following guiding question: Do full-time and part-time programs differentially affect the attitudes and achievement of gifted students? To answer this question teachers were asked to group or rank their students in terms of high, medium, or low ability based only on comparison within the classroom. From these groupings, target students were selected for focused observations and formal interviews during both phases of the study. It was assumed that, in focusing on students representative of each

of these teacher groupings, a wide range of student types would be observed.

All teachers completed this task, with the exception of the full-time teacher in District A who declined to do so. In this classroom, the four students selected for focused observation were students who approached the researcher of their own accord and appeared most comfortable "helping" the researcher understand the social environment. The selection of these students was later compared, with the teacher's knowledge, to a list of successful/not successful students provided by the teacher to district-level personnel at the end of the school year. According to this list, two of the students selected were considered successful and two not successful.

As the study progressed, the guiding question was reformulated: What factors make classrooms successful places for gifted students to learn? Subsequent observations and interviews focused on student definitions of learning and achievement, types of learning activities, and problems in the classroom. Formal interviews with target students were conducted throughout the study and with teachers during the initial phase. Numerous other students were informally interviewed during classroom observations.

Structure of the Study

Generalizations from case studies can be increased when multiple cases are included in a study, and when the sample reflects substantial variety among the cases. In this study three classrooms in each of two neighboring school districts were selected for prolonged observation. District A, an urban school district, employed 12 teachers and served 7.5% of its population. District B, a rural school district, employed 3 teachers and served 5% of its population.

The critera used to select classrooms as case study sites were: (a) the inclusion of an equal number of full-time and part-time programs in each district, (b) the inclusion of students in grades three through six, (c) teacher willingness to participate, and (d) teacher experience with gifted students. In District A one of the two full-time teachers declined to participate because he believed the pressures of teaching would be multiplied by the study, though he did allow several students to be interviewed and the entire class to complete a written questionaire. One District B full-time teacher was omitted due to lack of experience teaching the gifted. Part-time District A teachers who met the above criteria were selected by the

county supervisor. In District B the one part-time teacher serving all grade levels participated in the study.

Two phases of observation were conducted in each of the six classrooms, one at the beginning and one during the latter portion of the school year, to total 146 hours. In addition to these observations, samples of student work, curricular materials, report cards, evaluation surveys sent by the districts to teachers and parents participating in the program, written documents explaining district goals, and district-wide committee recommendations concerning future changes in program models were collected and examined. Questionaires were sent to each district supervisor to obtain an overall picture of the districts' programs.

Analysis of Data

In this study the questioning process was a critical aspect of data collection in both phases, and led to the discovery of categories of data significant to each individual site (Bogdan & Biken, 1982; Spradley, 1980). A within-site analysis was completed for each of the six classrooms, using the period of time between the two phases of the study to reformulate questions and develop codes for the comparison of data across sites. To increase generalizability and isolate categories which were idosyncratic, a cross-site analysis was then conducted (Miles & Huberman, 1986).

Data obtained from the quantitative portion of the research project was abstracted for each of the six sites. Qualitative factors considered significant were then compared to these sets of quantitative data in a search for supporting evidence or negative examples.

Assumptions and Beliefs about Gifted Programs

When this study began, a belief commonly held among educators and community members in the two districts was that full-time programs were better able to meet the needs of gifted students. A district administrator described the difference between the program models as the difference between acceleration and enrichment, a belief which was shared by teachers in both programs. That enrichment was perceived as a less challenging option was evidenced by the numbers of parents in both districts who prefered to have their children placed in full-time programs. While no program evaluations had been conducted beyond end-of-the-year surveys, parent pressure to increase the

number of self-contained gifted classrooms, and principals' beliefs that pull-out programs including gifted were disruptive to the regular classroom, lead one district's self-study committee to recommend a substantial increase in the full-time program.

Identification was a key issue in both districts. In District A, students who were identified as gifted and wished to attend the full-time program were placed on a waiting list for available vacancies. In District B, the names of students identified were placed in a pool. Students in the pool were then rank ordered and the top ten students in each grade level were offered a place in the full-time program. Neither system was without problems. There was continual discussion among teachers about the placement of specific students, as well as the long-term effects of participation in full or part-time programs.

Of great concern were students who met test score criteria but who failed to achieve when placed in the gifted classroom, either on a full or part-time basis. Some teachers believed these students were better off in a full-time program which could be adapted to meet their needs; others believed that students in full-time programs should not evidence any special learning problems. To a great extent this controversy resulted from the lack of a clear, written philosophy which addressed the nature and needs of gifted students. Without written guidelines to spell out district policy on disadvantaged or underachieving students, teachers were unable to go beyond appropriate placement questions to assess ways their own classroom learning environments might help or hinder such students.

When data collection for the study began, teachers in District A's full-time program identified students who "could not keep up with the class" and students who "needed remediation or had emotional problems" as their greatest problem. These teachers described themselves as being under pressure from parents whose children they wished to remove, and from a district which had labeled the full-time program the "real" gifted program. In contrast, the full-time teacher in District B noted that it was rare when a student "might have an area in which something had to be done (remediation), but for the most part they should be at or above grade level."

Despite the difference in teachers' perceptions of their classrooms, a comparison of I.Q. and achievement test scores revealed that there was not a great difference among students attending either program in either district. In fact, students enrolled in District A's full-time program

had the highest mean I.Q. score among all the sites, six points above the mean I.Q. for District B's full-time program.

Looking into Gifted Programs

Do full-time and part-time programs differentially affect the attitudes and achievement of gifted students? The sites included in this study illustrate the difficulty in making program comparisons without first considering the context of the individual classrooms within each program.

Classroom Differences: Full-Time Programs

Differences between the full-time, self-contained classrooms began with differences in district budgets. Competitive grants had enabled District B teachers to purchase equipment such as computers and printers, video cameras, slide projectors, typewriters, and a variety of books and materials. In District A the budget for full and part-time classes was considerably less, due in part to the greater number of teachers employed. The result was that students in B accomplished many classroom learning activities with the use of media. They recorded themselves on video camera when they gave speeches or read poetry, used a computer as a suppliment for individual math programs, and organized a visual record of classroom projects and activities using a camera and slide projector.

Insert Figures 1 & 2

The most striking difference between the two classes was the way in which students were organized to learn. Though in both classrooms students worked on contracts and in small learning groups, there were fundamental differences in the organization of these activities. In District A a more traditional approach was used. Students were divided into ability groups in Language and math which remained stable during the year. Weekly work was assigned to the groups, or the class as a whole, and listed on contracts for each individual child. Students were then expected to work independently on contracts, budgeting their time so that all assignments were completed by the end of the week. Each afternoon contracts were placed in the upper corners of students' desks so that the teacher could check student progress. While students could work on contract assignments in any order they wished, work was checked daily. The

teacher indicated that as often as possible students received daily grades.

In District B, the schedule of activities changed daily and often reflected major projects taken on by the class as a whole (4-H speeches) or by small groups within the class. Students in this classroom worked on contracts in Language and math at their own pace, checking their daily work independently and using pre-tests and post-tests as a guide in a format similiar to mastery learning. The teacher did set limits as to how many units should be covered during the grading period with a post-test score of 90%, but students were strongly encouraged to exceed the minimum. Small groups which met for math and Language did not always meet regularly and could be called when students were having problems. Membership was flexible because the same students were not on the same set of exercises.

Classroom Differences: Part-Time Programs

Part-time programs in the two districts operated by pulling students out of their regular classrooms one day per week. In District B students were bused to the school in which the program was located, unlike students in A whose teachers moved from school to school. This, combined with budget and curriculum differences, resulted in two pull-out programs which were quite different.

Insert Figures 3 & 4

Given that teachers in District A needed a "mobile" curriculum, part-time classrooms were organized around a "loose interpretation of Renzulli's model" (Renzulli & Smith, 1979). Students were given a variety of introductory, enriching experiences (Type I) and problem-solving and creative thinking activities (Type II) during the first portion of the school year. These activities varied greatly from teacher to teacher and depended on what materials the teacher felt comfortable using. The latter portion of the year was devoted to independent research projects (Type III).

"Basically what she does," explained a sixth-grader, "is pick our brains. She makes us do things we wouldn't normally do....I guess because [regular classroom teacher] doesn't think...I guess because they just want to teach the main things you really need to learn. She (gifted teacher) helps us use our brains more." Students enjoyed the novel activites they associated with the program and the privileges it allowed them, but had difficulty connecting

the activities to the things they learned the rest of the week. For example, using the science encyclopedias, the thesaurus, and other reference books in problem-solving activities was something they associated with their gifted program, but not the regular classroom.

Getting students to use the problem-solving methods they learned when completing their independent projects was also difficult. Without daily interaction, students lost motivation or tended to do only what was necessary. Some teachers found that structuring the projects for students lead to greater success and enabled the teacher to be more helpful, though they realized that this approach did not lead to projects which were real-world products (Type III). The following incident illustrates the difference:

> Researcher: What are you doing?
> Student: I want to do something on bass, but I can't find any books on bass here. I guess I should try someplace else or maybe just books on fish.
> Researcher: Well, how did you get interested in bass?
> Student: My grandfather fishes and he takes me along.
> Researcher: What about asking your grandfather for some information? Do you think he is an expert?
> Student: (pause) Yeah, like an interview? I guess I could do that.
> Researcher: What else? (Pause) Could you interview other people who fish about what they do?
> Student: Yeah, I guess I could do like a report on what people say because it's hard to find books.
> Researcher: I wonder if you could write a book instead, since it's so hard to find one?
> Student: Yeah! (excitedly) A book from a fish's point of view!

In District B the connection between the regular curriculum and the part-time gifted program was much stronger. To some extent this was due to the teacher's lengthy experience in the same community, and the reality that, as the only part-time teacher, regular classroom teachers knew with whom they should communicate about students. More importantly, however, District B's curriculum was interdisciplinary in nature and content-based.

Much like the full-time program, though on a smaller scale, students in District B's part-time program were presented with problem-solving situations within the framework of the basic content areas. Though little math was incorporaed because the teacher believed this to be her weak area, students regularly worked on activities in literature,

computers, and integrated problem-solving. During this study students completed two units, one on myths and fables and one on American heroes. Each combined science, social studies, literature, and problem-solving. As one student explained it, "We have every class in here" (gifted program). For these students, the gifted curriculum was "more in depth" (as compared to regular classwork). "We learn more in here because she has time for us...because we can talk more...because we work together."

This was not to say that the dichotomy between important curriculum (regular class) and fun, mind-stretching activities (gifted class) expressed by students in District A did not surface in B. It did, though it surfaced in the form of disagreement as opposed to a commonly held belief. For example, during a group interview students were asked to describe how the gifted class was different from their regular class. When one sixth-grader commented, "I think we learn stuff in here that we don't need to get a job. I think we learn things not to help us in life, but to work our minds.", numerous students took issue. One student laughingly replied that the gifted curriculum actually helped him in his regular class.

As these classroom snapshots illustrate, attempts to compare the cognitive and affective outcomes of full and part-time programs must first take context into account. External factors can influence program development and implementation to such an extent that program type, i.e. part-time, is actually a less descriptive term that the district in which the program is located (Kramer, 1987). These classroom differences may explain the lack of significant findings when quantitative data gathered on student outcomes in the original research project was used to compare full-time to part-time programs (Demers, Kramer, & Lacefield, 1987).

Classroom differences which emerged from within-site analysis lead to the second question posed in this study: What makes a classroom a successful place for gifted students? To answer this question cross-site analysis was used to compare individual classroom characteristics and data obtained on target students. What resulted was the isolation of teacher beliefs and teaching strategies which did influence student attitudes and achievement, but were unrelated to program type. Rather, what emerged as important was classroom goal structure. Qualitative analysis led to the proposition that cooperatively structured classrooms were more successful learning environments.

Successful Classrooms: Competitive or Cooperative Goals

The effects of cooperation and competition have been explored by numerous researchers since Deutsch's (1949) original work. This research, summarized by Johnson and Johnson (1986) and by Slavin (1983; 1986), presents substantial evidence that cooperative classrooms promote problem-solving skills and interpersonal relations to a greater degree than competitive classrooms. The possibility that these classroom goal structures might interact with learning styles was investigated by Wheeler (1986). Wheeler found that competitive goal structures had a greater negative effect on the attitudes and achievement of students with cooperative predispositions than on students with competitive predispositions. However, the achievement and attitudes of students with competitive predispositioms were less affected by cooperative goals. Thus, it would seem that classrooms with cooperative goals would be more successful learning environments for a greater number of students. This possibility has not been investigated with regard to gifted students.

In this study teacher beliefs and teaching strategies which could be categorized as cooperative or competitive goal structures emerged as significant. Four classroom sites were identified as cooperative and two as competitive based on the following characteristics.

CHART 1: TEACHER BELIEFS

+Most Cooperative.....-Most Competitive	
Unsolicited teacher remarks about cooperative learning.	Unsolicited teacher remarks about competitive learning.
Task structures reflecting: 1. Group/class responsibility. 2. Mastery learning strategies. 3. Individual challenges.	Task structures reflecting: 1. Individual responsibility. 2. Competition for limited grades.
Student comments and behavior which reflect group goals.	Student comments and behavior which reflect active comparisons and individual goals.
Broader teacher acceptance of differing abilities among students.	Narrower teacher definition of giftedness.

While no attempt was made to determine if target students had cooperative or competitive predispositions, the attitudes and achievement of these students will be discussed in relationship to the goal structure of their classroom.

Competitive Classrooms

The most competively structured site in this study was the full-time classroom in District A. Competitiveness here seemed to emerge naturally as a result of open-door admission to the program (based only on a waiting list) and teacher beliefs that only students who could reason well and quickly should be admitted. The fact that many students had performed poorly in the classroom since its inception led the teacher to believe that inappropriate identification was at fault, and resulted in increased attempts to remove students who did not do well from the program. Additionally, the full-time program's status in the community and the need to comply with district guidelines for curriculum content put pressure on the teacher to produce a tightly structured, accelerated classroom environment in which there was little time for "remediation".

Students in the classroom indicated that they were always aware of who understood and who didn't understand because they "could just look up and see" who had finished contract work or other assignments. Despite the fact that students could complete work in any order they wished, weekly due dates and common assignments produced pacing which was similiar enough for students to compare their progress with others. The pressure to do well, keep up, and stay organized was acknowledged by all the target students as well as other students in the room because doing poorly meant possible removal.

During the initial phase of observation students candidly discussed others who had left the classroom, and the reasons they had not done well. When Susan, a late addition to the classroom, arrived shortly after school began, the opportunity presented itself for first-hand observation of the meaning of "doing poorly". Susan's dilemma, explained by one target student identified as not successful, resulted from her late arrival. Joining the class after a routine had been established was the reason this target student believed she had initially done poorly, though not allowing the pressure to affect her attitude was what enabled her to do better. Susan, however, seemed unable to settle in. Twice she was observed crying in class, the second incident occuring during a social studies test.

Teacher: Clear your desks and get your pencils out.
Student: How much does each question count?
Teacher: I don't know. I haven't decided. (smiles)
Student: Is it easy?
Teacher: (still smiling) None of my tests are easy!
(She has students cover their papers and begins to circulate. Fifteen minutes passes and Susan begins to cry. The teacher walks by and pats her once on the shoulder. Susan wipes her eyes and continues. The teacher returns to stand close to Susan for a minute and then walks to the table beside the researcher.)
Teacher: I gave a microbiology test last week and a parent came in and complained about it! He said he couldn't pass it and he was a scientist.
Researcher: How is Susan doing?
Teacher: She is one of my new ones. She's struggling. She hasn't passed anything yet. All her work is going home to be signed. She should be in the regular classroom where she could excel and feel good about herself.
Researcher: What do you think her problems are?
Teacher: She's almost remedial in reading and she's very weak in science. We advised her not to be in here.
(Susan is sobbing. She puts her head on the desk. The teacher walks back to her and leads her out of the room. When they return a few minutes later she hands Susan a kleenex and directs her to resume the test. Susan sits and stares.)

When the researcher returned to class the following day, the social studies test had not been returned. Students, however, were already aware that one student had made a perfect score. The importance of grades and the competition to receive excellent ones was an overriding characteristic of the classroom, and the root of much pressure for students. Though the teacher was aware of this, she was did not restructure learning activities or deemphasize grades, perhaps because her ideas on acceleration suggested a competitive organization. "I try very hard, but I can't take the competitiveness out of this classroom. Gifted students are simply competitive!

Interviews with target students early in the study, before the teacher's list of successful/not successful could be used to identify them, uncovered two patterns. Students who were identified as not successful believed they did their best work in group situations. Secondly, all target students believed there was a period of "adjustment" through which everyone passed when joining the classroom. Interesting, when one successful student was asked to describe his progress at the end of the year, he could actually pinpoint the end of his adjustment period. Asked if

everyone could be successful in the classroom he replied, "I don't know. I think most people could. If they don't they don't have the ability and I guess the attitude to do the work....I never got that frustrated [during the adjustment period]. Maybe one or two times because I didn't know what to do. " Susan, despite having the I.Q. and achievement test scores to gain entrance to the gifted program, was an example of that frustration. She left the classroom shortly after the day of the social studies test.

So public was knowledge of progress and competition for grades in this classroom that students had begun to discuss the fate of their classmates during the last weeks of school. Two girls informed the researcher during an interview that one of the target students, who would later be identified as unsuccessful, would not be returning to school. When asked to explain how she knew, one girl remarked, "You hear a lot of rumors".

The second site identified as a competitively structured classroom was a part-time classroom also in District A. Though students did not receive grades, it was the teacher's belief that competition was an inescapable aspect of curriculum for the gifted. While questions concerning competition were not directly asked, the subject surfaced frequently in discussions about classroom observations. Noted the teacher, "It is inborn in them. I don't think it is wrong. I think competition is really good for them and I like to see it."

In this part-time classroom students worked on a variety of problem-solving and creative thinking activites during the day. Strategies used to approach problem-soving were not discussed, however. Rather, it was the teacher's practice to encourage students to work as rapidly as possible on their own to solve problems. While students thoroughly enjoyed the activities, competition to solve the problems first produced "cheating" and accusations of cheating on the parts of some students as opposed to group efforts and a focus on the problem itself. As students completed activities they brought them to the teacher who would either announce that they were successful, or give the class hints to speed up their work and motivate them to try harder. The following comments are illustrative of the nature of competitive learning in this classroom.

Incident #1 Teacher: Joanna is the first one to do the button excerise!

Incident #2 Student: Give us a hint!

Teacher: It's too early for a hint! You haven't thought long enough yet! (approaching Sam's seat) This looks like Ken's work! Did you do your own work? Be an independent thinker!

Incident #3 Teacher: (Putting her arms around Joanna) I'm so proud of you! You are always the first!

Incident #4 Teacher: Jason is the first one to get the numbers problem right!

After witnessing an incident in which three students recovered another students' paper from the trash to find the answer to a problem, students were asked if they were under pressure to get the right answer. "No," replied one student. "But if everybody else is getting it you just get so mad! We got to get it done....You get frustrated if you're just sitting there sweating all over the paper. If you're going to figure it out, you've got to do it then. If you don't figure it out, you won't ever figure it out!"

Target students rated as high in ability rushed to give the teacher the correct answer and were usually the first to do so. On some occasions this produced a great deal of frustration for one boy who was so determined to get the right answer that he would refuse to go on to other problems or activities. "You're too attached now to get the answer," he was told by another student during one such incident. The student later explained to the researcher that the only way to solve a problem was to step away from it.

Target students rated low in ability were never observed to get the answer first. In this classroom, however, because no grade served as a final evaluation and there was no fear of removal, these students appeared to be generally unconcerned. They tended to remain in the background, however, quiet and uninvolved.

Cooperative Classrooms

The most cooperatively structured classroom in this study was the full-time classroom in District B. Students here referred to themselves as a family of "explorers", and to others who had graduated and gone on to other grades as "old-timers". Several activities contributed to this feeling of togetherness. Students kept indivdual scapbooks in which they listed and described all class activities such as books they had read together, trips taken, or guest speakers who had visited. All members of the class belonged to the Junior Historical Society, and as such, participated as a class in many of its activities. Speeches for a 4-H

project were written by all members of the class, though they did not have to enter the competition. Every year the class produced items for a mini-business which were sold to provide the funds for a class trip. Though the teacher did not categorize these as activities with group goals, she described them as ways that students would learn responsibility to each other as well as for themselves.

The organization of daily learning activities reflected a combination of group and individual goals. Students worked independently in a mastery learning situation, and were encouraged to pace themselves at a level appropriate for their ability. A student could, at any time, examine their pace and issue a "challenge" to the teacher. Challenges were agreements between a student and the teacher in which the student planned to complete more work than was required in the original learning contract during a certain time period. If a student won the challenge, the teacher planned a special treat such as dinner at MacDonalds. Challenges happened frequently in the classroom. During one observation, a target student identified as low issued a math challenge to the teacher. The teacher excitedly repeated word for word the students' challenge and then nodded agreement in a business-like fashion. She later told the researcher that the special treats she planned meant spending individual time with students after school. "In this way I can also see their homes, spend extra time with them, and they can see me as human."

Current events, which occurred weekly, combined individual and class goals. Each student received the news story for which they were responsible early in the week. Topics and materials came from a commercially produced kit, but students were expected to follow the story in the news and add as much as they could to the commercial materials when they presented their topic orally to the class. Responsibility for adequate presentation was felt by all students for, after topics were presented, questions and debates among classmates were not uncommon. Once current events were completed, the class collected the materials and kit to share with other classes in the school.

So ingrained were group goals that, when asked what he liked about the class, one target student replied,"I like the traditions that have evolved best. Like, there is a third grader who hangs around with us at lunch, and we help him out...give him advice. One day, you know, we'll be the old-timers! I never thought I would be an explorer!" The traditions to which he referred were the group activities which had begun with the inception of the full-time class, and which had continued in some form from year to year.

Thus, the name "explorer" came to be a group term which denoted working together, and which carried with it the traditions of those who had been in the classroom before. Examples of work completed by the "old timers" were sometimes kept in the classroom to prepare students for similiar experiences, as were slides of their activities. "Old timers"even planned a classroom introduction party for new, incoming students which they also video taped.

The teacher's views about the kind of giftedness needed to do well in a full-time class were broadly based. The third grader who "hung around at lunch" had even come to the attention of the teacher who suggested that peer nomination was a valid method of identifying gifted students. She noted that when the time came she would make an effort to look at the student's scores personally. For this teacher, a multi-dimensional criteria was the best way to identify gifted students, and she was concerned that as the district moved toward greater emphasis on test scores teacher nomination would receive less emphasis.

In this class grades were important, but every attempt was made to discourage students from comparing grades with others within or outside the class. The teacher had been allowed by the district to develop her own report card. She strongly believed that "letter grades and regular school report cards should not be assigned to students in advanced programs such as this." In fact, she gave students their report cards on a day when no other students in the district received theirs, and planned parent-student-teacher conferences to coincide with report card distribution. "These kids are used to getting straight A's, you know, in a regular class. So, in here, on their cumulative folders I just write in that they did very fine work in as advanced placement program. Grades (teacher emphasis) for elementary kids just are not that important. When they get in high school, nobody looks at those."

How students fared upon leaving this cooperative class was not investigated in this study. There were rumor among teachers, however, that some of these students were not selected for upper-level math classes. This may reflect the difference between the strict, knowledge-based math placement test given to sixth-graders entering the middle school and the broad-based, idividualized math program used in the full-time classroom. It may also have reflected a move to more competitive classrooms. The year following the study the researcher did meet several of the target students while doing observations in the middle school. The same students who had exhibited the ability to pace themselves and the motivation to do well sat quietly in the back of classrooms taking notes.

The two part-time classes in District B were taught by the same teacher, and reflected the philosophy of the full-time program to a great extent. These classes and one part-time class in District A met the qualifications as specified for a cooperative classroom.

Comparing Quantitative Data for Individual Sites

Evidence to support the qualitative proposition that cooperative classes were more successful ones for gifted elementary students was sought by abstracting scores from the Developing Cognitive Abilities Test (DECAT) from the quantitative data gathered in the original project.

CHART 2

DEVELOPING COGNITIVE ABILITIES TEST GAIN SCORES: COMPARISON OF SELECTED CLASSROOM MEANS TO TOTAL POPULATION MEANS

MOST COMPETITIVE.....MOST COOPERATIVE

	DISTRICT A		DISTRICT B		
	FT	PT	PT	PT*	FT
VERBAL	-	-	-	+	+
QUANTITATIVE	+	+	-	-	+
SPATIAL	-	-	+	+	+
KNOWLEDGE	-	+	+	-	-
COMPREHENSION	-	-	-	+	+
APPLICATION	-	+	+	+	+
ANALYSIS	+	+	+	+	+
SYNTHESIS	+	-	-	+	-
COMPOSITE	-	-	+	+	+

+ Indicates mean gain score which exceeds the mean gain score for the Total Population.

* Indicates that both part-time (PT) sites in District B are included in one set of data.

The most cooperative classrooms in this study exceeded the mean the gain scores of the total population on subtests of the DECAT more often than the most competitive classrooms. While this chart takes into account only quantitative data for those students taught by the teachers included in this study, it does suggest a pattern which supports the proposition that successful classrooms for gifted students are those which incorporate cooperative goal structures.

IMPLICATIONS FOR FURTHER RESEARCH

> Third Grader: I think that what makes me gifted is because gifted children are born with a natural intelligence to do certain things that other people can't do. They are special. They're special because when they were born they somehow got this natural power.

It may be that in labeling students as gifted we set them up for achievement expectations which will not always be appropriate, and in highly competitive contexts, may even prove debilitating. For young, gifted students whose conceptions of intelligence are related to concrete experiences, the instructional environment of a gifted classroom may be a more important variable than the amount of time they spend in a program.

This study suggests that the cognitive and affective outcomes for gifted students placed in full or part-time programs are affected by the goal structures of their classrooms. The issue of cooperation and competition has not been addressed in basic research on the gifted beyond findings which suggest that labels which narrow prospects for performance may be damaging (Rim, 1986). Further studies which first identify exemplary programs for gifted students, and then collect quantitative and qualitative data on program outcomes are needed to examine this issue.

REFERENCES

Bogdan, R. & Biklen, S. (1982) Qualitative research for education: An introduction to theory and methods. Boston: Allyn & Bacon.

Demers, S., Kramer, L., & Lacefield, W. (1987) Cognitive and affective outcomes for gifted students in full-time and part-time gifted education programs. Lexington: University of Kentucky, Center for Professional Development.

Deutsch, M. (1949) A theory of cooperation and competition. Human Relations, 2, 129-152.

Griffin, C.B. (1984) An analysis of learning styles, achievement, and higher cognitive processes in three programs for gifted urban elementary schools. Unpublished doctoral dissertation, Temple University.

Johnson, D. & Johnson, R. (1986) Learning together and learning alone. Englewood Cliffs, NJ: Prentice-Hall.

Kramer, L. (1987) Self-contained and resource room programs for the gifted: Factors influencing effectiveness. A paper presented at the annual meeting of the American Educational Research Association, Washington, D.C.

Miles, M. & Huberman, A. (1986) Qualitative data analysis. Beverly Hills: Sage.

Renzulli, J. and Smith, L. (1979) A guidebook for developing individualized educational programs for gifted and talented students. Creative Learning Press: Mansfield Center, CN.

Rimm, S. (1986). Underachievement syndrone: Causes and cures. Watertown, WI: Apple.

Slavin, R.E. (1983) When does cooperative learning increase student achievement? Psychological Bulletin, 94, 429-445.

Slavin, R.E. Cooperative learning: Where behavioral and humanistic approaches to classroom motivation meet. A paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA.

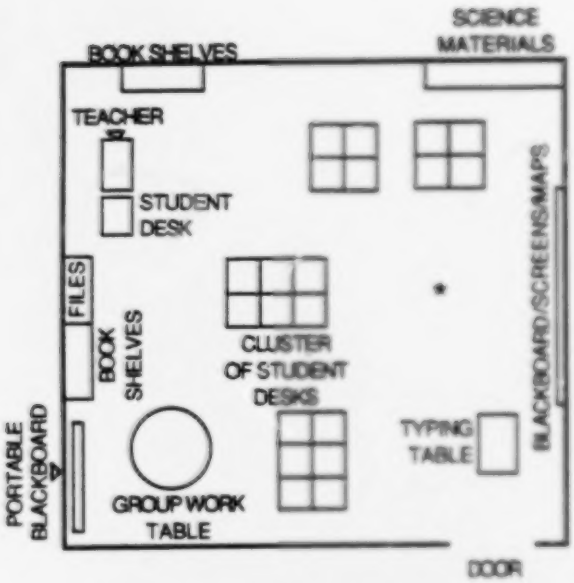
Spradley, J. (1979) Participant observation. New York: Holt, Rinehart, Winston.

Wheeler, R. (1986) Effectives of classroom goal structure on cooperative and competitive predisposition: Transescent students' attitudes and achievement in problem solving. In D. Strahn (Ed.) Middle school research: Selected studies, 1986. (pp. 42-55). Columbus, OH: National Middle School Association.

Widdup, D.C. (1980) The effects of an enriched educational program on the academic, intellectual, and behavioral functioning of underachieving, culturally disadvantaged, mentally gifted minors. Unpublished doctoral dissertation, University of the Pacific.

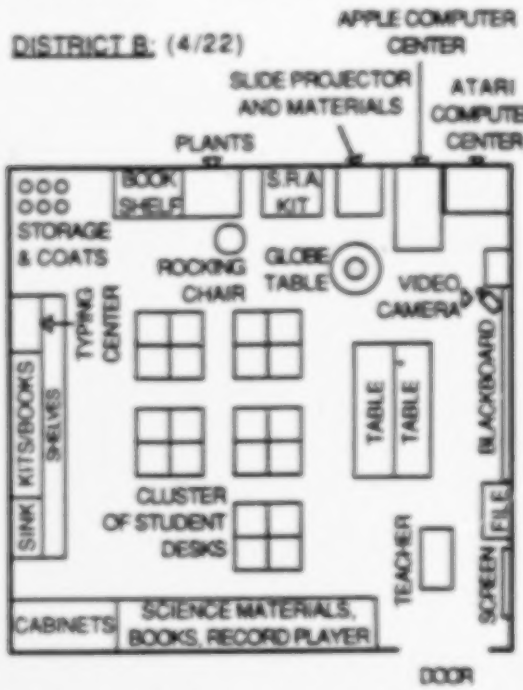
Figure 1: Two Self-Contained Classrooms

DISTRICT A: (5/7)



*Room arrangement frequently changed to accommodate student workshops and projects. Open area used for mime workshop 5/7.

DISTRICT B: (4/22)



*Tables used for group meetings and checking independent work.

Diagrams do not include bulletin board displays or mobiles.

Figure 2: Daily Routines in Self-Contained Classrooms

DISTRICT A- 3/4 GRADES *

8:40 - 8:50	Spelling/Language
9:20 - 9:50	P.E./Music/Library
9:50 -11:35	Reading
11:35-12:35	Math
12:35-12:55	Lunch
1:00 - 1:15	Recreation
1:15 - 1:30	Reading/Journals
1:30 - 2:30	Social Studies/Science
2:30 - 3:00	Problem Solving/Health

Students work independently on 'Contracts' while the teacher works with structured groups during the morning. Several projects are undertaken during the year which cause variations in the schedule.

*Teacher provided schedule at beginning of the study.

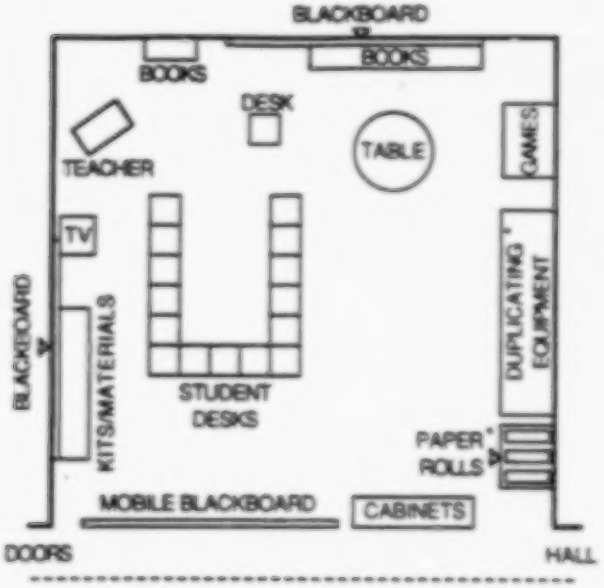
DISTRICT B- 5/6 GRADES +

DUE DATES	INDEPENDENT WORK	GROUP TIME
Tues.-Poetry Pursuit	• Math - 45 min.	• Mini-Business
Wed.-Math 6	• Spelling	• Electricity
Thurs.-Reading 2/100	• Speech - 15 min.	• Social Studies
Fri.-Spelling	• Make-up Spelling Test	• Poetry Taping
Electricity Contract	• Electricity	• Guest Speaker: Dr. Miller
	• Middle Ages Project	
	• Computer Center	

+Schedules copied from classroom blackboard - Fieldnotes 11/12. Independent work (Contract) and Group Time (whole-class activities) changed daily. Math and Language sub-groups met periodically and had flexible membership.

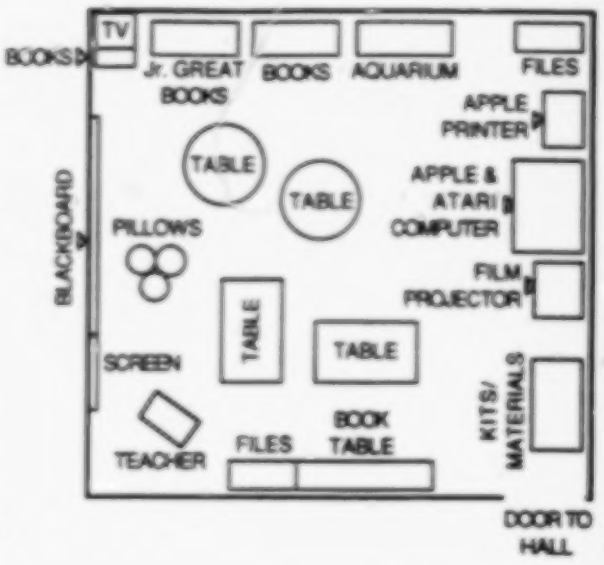
Figure 3: Two Pull-Out Classrooms

DISTRICT A: This teacher serves 3 different schools and teaches here 2 days per week. (4/25)



*School storage area while building renovation occurs.

DISTRICT B: Students are bused to this school. (4/21)



Diagrams do not include bulletin board displays.

Figure 4: Daily Routines in Pull-Out Classrooms

DISTRICT A - 5/6 GRADES*

Topsy-Turvey Pictures	Activities from Games Magazine. Students draw pictures which change meanings when rotated.
Teacher reads episode from "The Trip".	Activity from Imagination Express. Students write and perform dialogues based on the episodes.
Thanksgiving Logic	Deductive reasoning activity. (Ditto)
"My Mark"	Problem-solving activity which involves using references. Class works on this during a regularly scheduled library period.

*Schedule obtained from Fieldnotes on 11/8. Similar activities occurred on a regular weekly basis and are considered Type II Activities (Renzulli Model) which help prepare students for an independent Type III Activity at the end of the year.

DISTRICT B - 6th GRADE *

"To Build A Fire"	Story, Discussion, Written Vocabulary and Questions from Junior Great Books.
Computer Programming	Instruction and Activity dealing with plotting movement.
Thinking & Research Skills	Library activity using Biographical Dictionary to find out about the story's author, Jack London.

*Schedule obtained from Fieldnotes on 11/27 reflects similar activities which occurred on a regular weekly basis. Long-term projects are periodically assigned during the week.